

Medication review in the elderly: how competent are community pharmacists in detecting drug-related problems?

Filipa Alves da Costa^{1,2}, Manuel Gimeno Palanca^{1,3}, Inês Miranda^{1,4}, Pedro Oliveira¹, Ana Isabel Fernandes¹, Patrícia Cavaco-Silva¹

- ¹ Centro de Investigação Interdisciplinar Egas Moniz (CiiEM), Instituto Superior de Ciências da Saúde Egas Moniz (ISCSEM), Caparica, Portugal
² Registo Oncológico Regional Sul, Instituto Português de Oncologia de Lisboa Francisco Gentil (ROR-Sul, IPOLFG), Lisboa, Portugal
³ Erasmus student, Valencia University, Spain. ⁴ National Association of Pharmacies, Pharmaceutical Services Department, Lisboa, Portugal

Introduction

While various barriers have been identified for the implementation of advanced pharmaceutical services, such as insufficient information technology (IT) support^[1]; some have suggested facilitators that could be adopted to overcome barriers, for instance the provision of practice-based training courses including skill-building in pharmacotherapy^[2].

Aims

To assess the ability of community pharmacists (CP) to detect drug-related problems (DRPs), including potentially inappropriate medicines (PIMs) and interactions, in elderly autonomous outpatients. A secondary objective was to compare it with the prevalence detected by an academic research team (RT).

Methods

A community trial was undertaken in Portuguese pharmacies (SOS Pharma Idoso)

Inclusion criteria: aged ≥ 65 and using ≥ 3 medicines

Intervention of CP in level 2 medication review^[3], using explicit (American Geriatrics Society (AGS) Beers criteria^[4]) and implicit criteria^[5]

Nested study of SOS Pharma Idoso data

The RT subsequently reviewed the medication in the intervention group (IG) and in the entire sample (ES), using AGS Beers criteria.

Interactions were also searched and graded considering their level of severity and according to their nature using Botplus^[6].

Analysis: Comparison of PIMs detected by CP and RT (Fig.1).
 Description of interactions detected by RT (Fig.2-4).
 Comparison of DRPs detected by CP and RT (Fig.5).

Discussion and Conclusions

Major discrepancies were found between DRP detected by CP and RT, although only 14 patients of the IG had their medication reviewed by CP. The prevalence of PIM found by the RT is consistent with previous studies^[7], suggesting practicing pharmacists need more support to be able to implement advanced complex interventions in practice. These may include continuous professional development courses, online help or software embedded alerts. In future medication review implementation studies, the RT should consider more intensive initial courses in order to enable CP with the competency to deliver medication review, as suggested by the Portuguese Pharmaceutical Society.

Results

A sample of 54 patients was analysed, where the mean age was 76.3 years (SD= 7.87), and 70% were female. Patients used 8 ± 2.65 medicines.

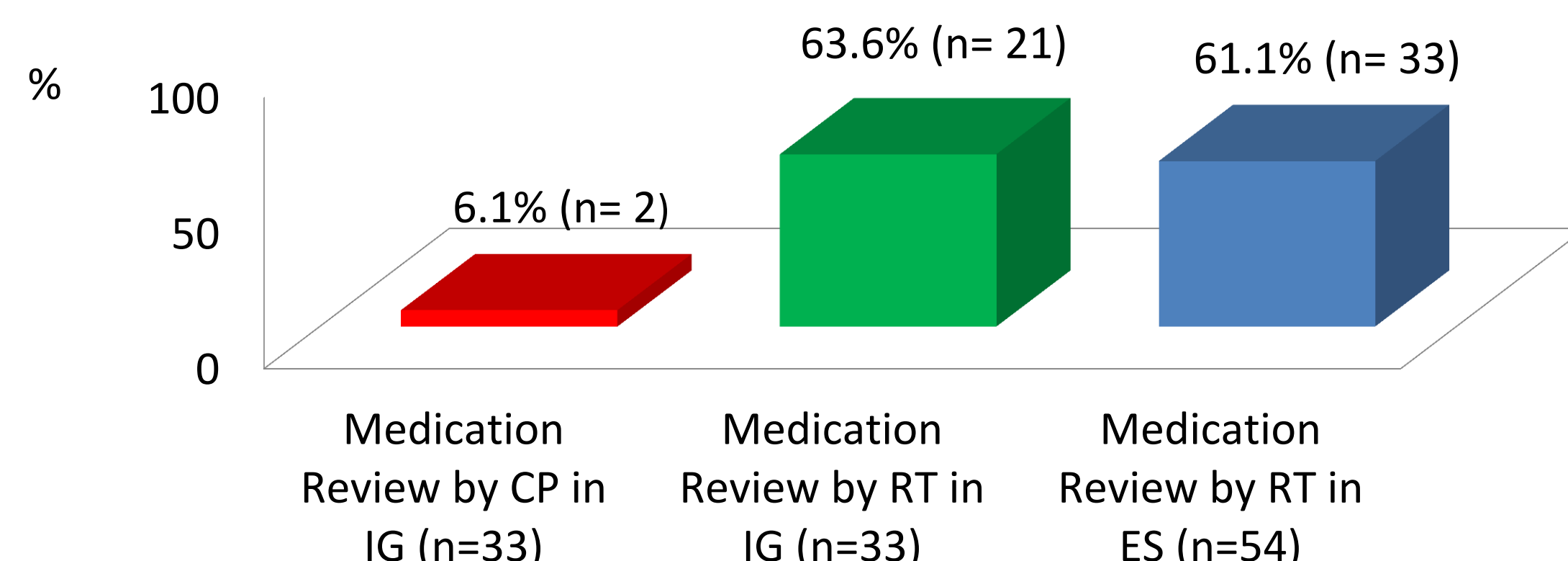


Figure 1. Prevalence of Potentially Inappropriate Medicines

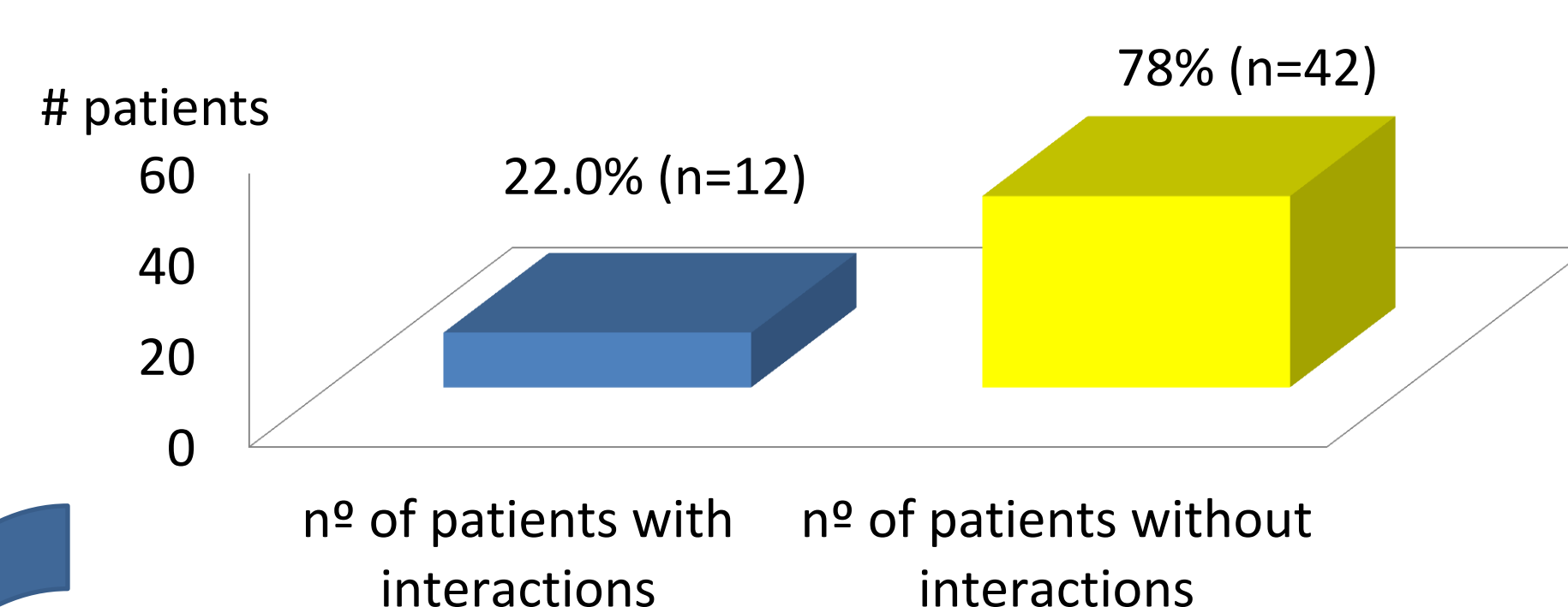


Figure 2. Patients with drug-drug interactions

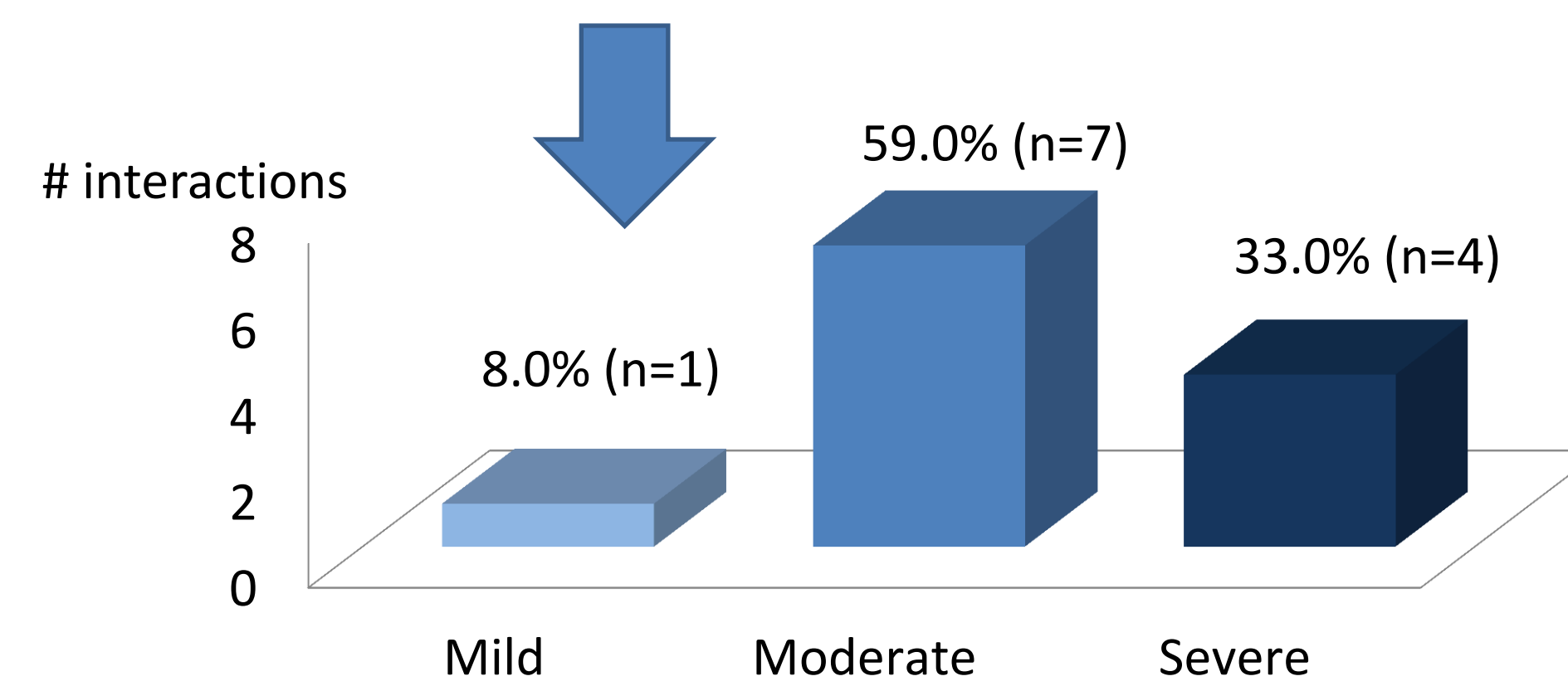


Figure 3. Type of interactions

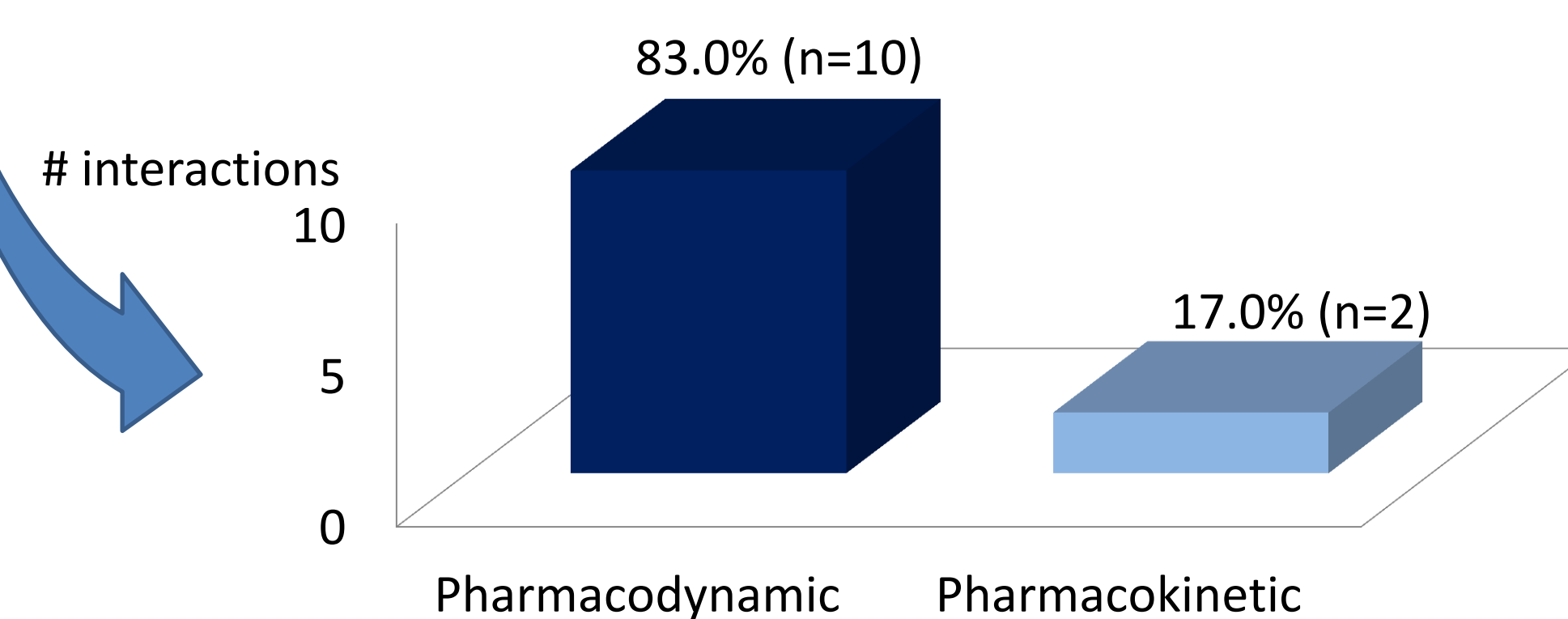


Figure 4. Nature of interactions

CP and RT detected respectively 21.2% and 63.0% DRP in the IG (Fig. 5).

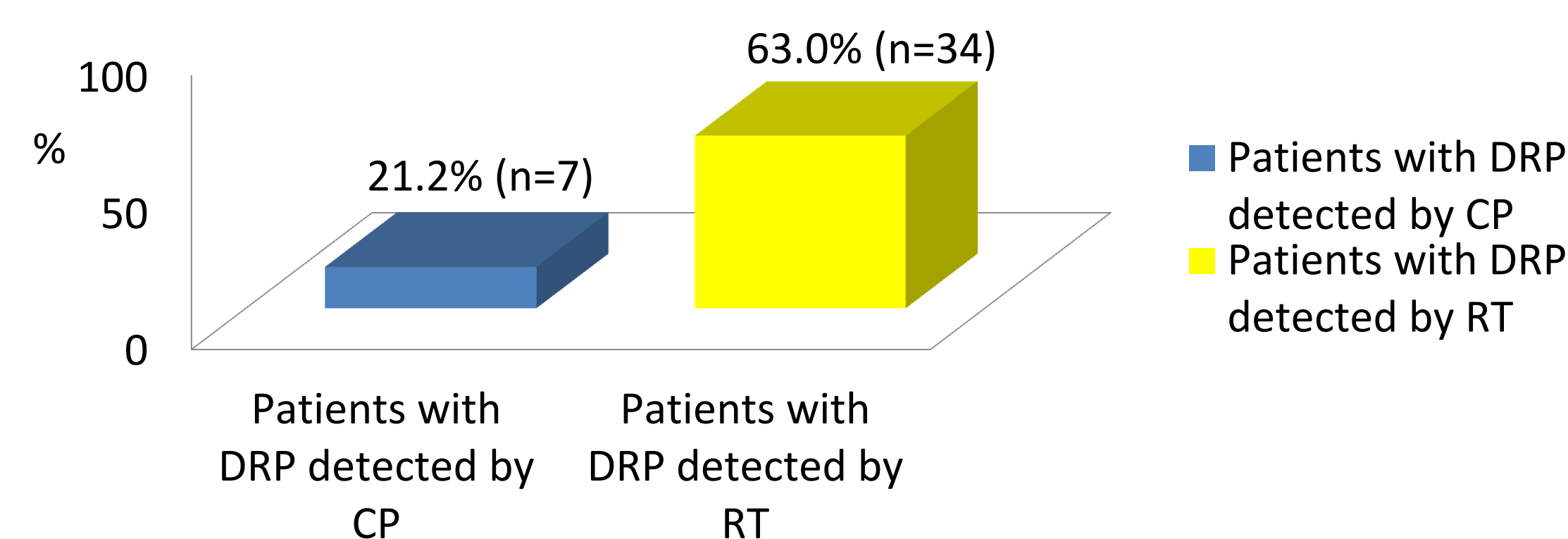


Figure 5. Percentage of patients with drug-related problems

Note: DRP were considered as interactions and/or PIM, as there were insufficient data for the RT to judge effectiveness and indication of medicines.

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